



Planning and designing healthy new communities: Selandra Rise

Research highlights

Introduction

Selandra Rise is a new housing development located in Melbourne's south-east growth corridor, 52km from the Melbourne CBD, where residents have bought land and built new houses over a period of several years. This research project aimed to discover how design and planning of a new residential community could improve the health and wellbeing of residents. In partnership with Stockland, the Metropolitan Planning Authority, the City of Casey, the Planning Institute of Australia (Vic) and VicHealth, a key focus of the research was the development of recommendations to inform design and planning of future residential communities.

The research was guided by the social determinants of health¹ directly related to housing and neighbourhood. These are: physical activity, social inclusion, mental health, childhood health, food accessibility and safety. It follows on from research showing that neighbourhood design can contribute to a sense of place and to the health and wellbeing of residents (Frumkin 2003; Giles-Corti et al. 2005).

¹ The social determinants of health (SDH) are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life (WHO 2016).



Research findings

From 2011 residents participated in in-depth interviews and surveys at three points: before moving to Selandra Rise, soon after they moved in, and again in 2015 to find out how the key design features impacted residents' health and wellbeing. Key features of Selandra Rise that integrated health into planning included:

- early delivery of public transport
- early delivery of a community centre

- access to green space within 300m for all residents
- facilitation of physical activity, including walking and cycling paths.

The residents were predominantly young first-home buyers and the majority worked in white collar or professional jobs. Most households were couples with or without children and almost half were born overseas. This document details the key research findings, which are separated into five areas:



LENGTH OF TRAVEL TO WORK AND HEALTH OUTCOMES

Residents were dissatisfied with the long commute to work, usually undertaken by car, which resulted in less time spent with family, less time available to exercise, fewer opportunities to engage with the community, and was associated with weight gain for some residents.



PUBLIC TRANSPORT AND CONNECTIVITY

Satisfaction with access to public transport increased following the early introduction of the bus service (three years after the first residents moved in). Satisfaction with access to public transport was substantially lower than in previous neighbourhoods.



COMMUNITY ENGAGEMENT AND SOCIAL CONNECTION

Some residents reported being more satisfied with the opportunities to meet people than residents in previous neighbourhoods and over a third had recently attended a community event or activity.



PHYSICAL ACTIVITY

Residents were very satisfied with the ease and pleasure of walking and quality of parks at Selandra Rise. Around two in five reported an increase in physical activity and more reported doing 'at least some' physical activity compared to those in previous neighbourhoods. For some, the streets and paths were not sufficient or did not connect well enough to other destinations and they found it harder to exercise than in previous neighbourhoods.



NEIGHBOURHOOD SATISFACTION AND WELLBEING

Overall residents were very satisfied with their house and neighbourhood but very few were satisfied with Selandra Rise as a convenient location. This may contribute to the finding that the residents were less satisfied with life than the general Australian population.

RECOMMENDATIONS FOR THE DESIGN OF FUTURE RESIDENTIAL COMMUNITIES

The initiatives delivered at Selandra Rise are a positive step towards incorporating social determinants of health into community planning. Early delivery of public transport, a community centre and diverse parks indicate small but positive impacts on residents' health and wellbeing. On the whole, residents were satisfied with Selandra Rise as a place to live, but long commuting times caused persistent and increasing dissatisfaction.

To improve the health and wellbeing of future residential communities in growth areas, integration with regional

planning and transport is vital, especially access to employment opportunities closer to areas of affordable housing. This could be facilitated through the decentralisation of employment in Victoria and the development of better and integrated road and public transport infrastructure and services. In addition, it is recommended that early delivery of major services such as public transport, local community services (e.g. shops and schools), well-connected paths and community facilities are delivered with the arrival of the first residents to encourage early adoption and support the health and wellbeing of residents.



Key findings: length of travel to work and health outcomes

For 86% of Selandra Rise residents who used a car to travel to work, commute times increased over the three years of the study as roads became more congested. Long commutes were a major concern for many residents, reducing the time they could spend with families, participate in community activities or exercise.

Few residents found work closer to Selandra Rise during their participation in the study, while some found jobs in more distant locations.

There was a sharp increase in the proportion of residents who had to travel more than an hour to work after moving to Selandra Rise, from one in five (18%) prior to moving there, to one in three (36%) in 2015. Strong dissatisfaction with work travel times grew for residents from before moving to Selandra Rise (12%) and 2015 (29%).

Residents with short commutes were most likely to report an increase in physical activity since moving to Selandra Rise (47%)

and also most likely to report having lost weight over the course of their participation in the study (46%), while those with long commutes were more likely to report that they exercised less (36%) and gained weight (52%). Overall, more residents gained than lost weight over the course of the study.

Evidence base: Long commutes have been linked to poor health outcomes (Hoehner et al. 2012) and internationally it has been reported that every 10 minutes spent commuting reduces all forms of social capital² by 10% (Putnam 2001).

² Social capital refers to features like networks, norms, and social trust that facilitate coordination and cooperation among people and communities (Putnam 1995).

WORK COMMUTE TRAVEL TIMES AND SELF-REPORTED WEIGHT CHANGE³



SHORT COMMUTE

27%

WEIGHT INCREASE



MEDIUM COMMUTE

40%

WEIGHT INCREASE



LONG COMMUTE

52%

WEIGHT INCREASE

³ Travel time categories were defined as: 'Short' – residents whose who travelled less than 30 minutes each way for the majority of trips; 'Long' – residents who travelled more than 1 hour each way at least four days per week; and 'Medium' – all other residents who generally travelled between 30 minutes and 1 hour each way.

RESIDENTS' SATISFACTION WITH COMMUTE TIME



BEFORE MOVING TO SELANDRA RISE: **68%**



AT SELANDRA RISE (2013): **49%**



AT SELANDRA RISE (2015): **46%**

“

I haven't been able to find the formula again, how to get exercise in my life whilst studying and commuting that long [trip].”

Kale, Selandra Rise resident, 2015

KEY RECOMMENDATIONS

- Support planning for, and delivery of, local and regional employment appropriate to the range of work sectors and professions of residents to reduce commute times.
- Integrate and synchronise all transport options to promote multi-modal use, active travel, and reduce car dependency; ensure sufficient road infrastructure to cope with changing traffic volumes.



Key findings: public transport and connectivity

A key dimension of integrating determinants of health into the planning of Selandra Rise was the provision of a bus service three years after the first residents moved in to connect the community with the Cranbourne shopping centre and train station. This service was introduced several years earlier than is standard practice.

Residents were more satisfied with access to public transport in 2015 (42%) than in 2013 (16%) after the introduction of the bus service. Satisfaction with access to public transport remained much lower than for residents living in their previous neighbourhoods (73%). 23% of Selandra Rise residents reported using the bus at least once, with 23% of bus users using it multiple times per week, 26% of bus users using it a few days per month and over half of bus users using it infrequently.

An on-bus survey showed that the most common trip purpose was work (39%) followed by study (18%) and shopping (16%). Most respondents lived at Selandra Rise (60%) or were visiting someone who lived at Selandra Rise (21%). This is despite the bus passing through several more established residential communities, suggesting early delivery of services and strong awareness from residents can increase patronage.

Evidence base: Without sufficient access to public transport households are at greater risk of social exclusion, which has negative health impacts and poor social outcomes for communities (Currie et al. 2009).

RESIDENT SATISFACTION WITH ACCESS TO PUBLIC TRANSPORT

	Satisfaction	Strong satisfaction
BEFORE MOVING TO SELANDRA RISE	26%	47%
AT SELANDRA RISE BEFORE BUS ROUTE INTRODUCED	12%	4%
AT SELANDRA RISE AFTER BUS ROUTE INTRODUCED	29%	13%

THE 798 BUS ROUTE



KEY RECOMMENDATIONS

- Deliver high frequency (i.e. minimum every 20 minutes), extended hours public transport during the week and weekend as early as possible, ideally with the arrival of the first residents.
- Plan bus routes so the majority of households are within walking distance (less than 1km) to a bus stop for accessibility, social inclusion and physical activity.
- Ensure service connectivity to other public transport services such as train stations and major facilities.



Key findings: community engagement and social connection

A number of features to encourage community connections were provided at Selandra Rise, the main initiative being an interim community centre – Selandra Community Place – established temporarily in a display home as the first residents moved in. It offered a range of educational and social activities, including a sustainable homes program. Other planned initiatives to encourage engagement included a community centre website, community garden, neighbourhood BBQ facilities, children’s play areas in parks and a youth park.

In 2015, 41% of residents reported attending some kind of social event, meeting or activity on-site at Selandra Rise in the previous 12 months.

Residents at Selandra Rise were more satisfied with the opportunities to meet people (88%) compared to those living in their previous neighbourhoods (65%).

For some residents, interviews revealed that Selandra Community Place played a vital role in reducing social isolation.

Evidence base: Community engagement and social connectedness are key determinants of health (Wilkinson and Marmot 2003). In new growth area communities, local social connections and a ‘sense of community’ can increase residents’ perceptions of belonging and attachment to where they live (Walters and Rosenblatt 2008).

SATISFACTION WITH THE OPPORTUNITIES TO MEET PEOPLE

SELANDRA RISE
RESIDENTS

88%
SATISFIED

THOSE LIVING IN
PREVIOUS NEIGHBOURHOOD

65%
SATISFIED

KEY RECOMMENDATIONS

- Undertake community consultation to guide design and plans for parks and common facilities, and provide opportunities for residents to have input into decision-making processes.
- Tailor social activities to residents’ demographic profile and support a range of culturally diverse opportunities for social interaction, including outdoor events and open days open to the whole community.
- Deliver community centres, facilities and support for community activities as the first residents arrive, using temporary measures or venues if necessary and partnerships with a range of stakeholders and providers.
- Engage with future residents early to determine preferences for programs and activities, and when to offer these.

“

I think [Selandra Community Place] and the events that happen there regularly is one of the best things... it was really helpful in knowing the neighbours.”

Sid, Selandra Rise resident, 2014



Key findings: physical activity

The design of Selandra Rise aimed to encourage engagement in outdoor physical activity by providing open space 300m from all dwellings; a footpath layout to encourage walking or riding to local shops, kindergartens and schools (not all were complete at the time of the study); parks with play areas and sports equipment; and an off-leash dog area.

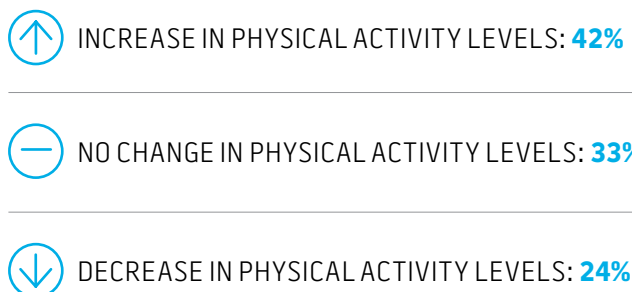
Resident satisfaction with 'ease and pleasure' of walking (97%) and the quality of parks (87%) were higher at Selandra Rise compared to residents living in their previous neighbourhoods (85% and 75% respectively).

42% of residents reported that their physical activity increased on moving to Selandra Rise while most reported no change or that their physical activity decreased.

Challenges to outdoor physical activity included lack of connectivity to infrastructure outside the community; lack of protection from the weather in parks; reluctance to exercise outside for cultural or safety reasons; the arrival of major life changes that disrupt routine, such as getting married or having children.

Evidence base: Most Australians do not participate in enough physical activity to benefit their health (ABS 2012) and access to attractive, large public open spaces can increase walking (Giles-Corti et al. 2005).

CHANGE IN RESIDENTS' PHYSICAL ACTIVITY LEVELS ON MOVING TO SELANDRA RISE



KEY RECOMMENDATIONS

- Prioritise active transport through provision of paths that connect residents to sports and community facilities, schools and shops, public transport and services within and beyond individual estates. Ensure paths remain functional during the construction phase.
- Support early delivery of – or interim measures for – community shops and other facilities including schools and childcare to encourage physical activity and improve walkability.
- Support access to on-site, indoor, physical activity opportunities if not available locally.
- Deliver parks as first residents move in to encourage walking, and multi-use parks and facilities for outdoor physical activity for different age groups, abilities and interests. Ensure sufficient lighting, shelter and equipment to support all-weather use.



Key findings: neighbourhood satisfaction and wellbeing

Residents were asked about how satisfied they were with a range of neighbourhood services and facilities. These neighbourhood features were chosen for their relevance to the health priority areas of physical activity, social inclusion, mental health, childhood health, food accessibility and safety.

Nearly all Selandra Rise residents were satisfied with their house (97%) compared to those in previous neighbourhoods (72%). Only 25% of residents were strongly satisfied with the Selandra Rise as 'a convenient location', compared to 57% of residents in previous neighbourhoods.

More residents living at Selandra Rise were satisfied with their personal safety after dark (82%) compared to those living in their previous neighbourhoods (71%).

Using an indicator of wellbeing, a question about overall life satisfaction (ABS 2010) was introduced in the 2015 resident survey to compare Selandra Rise residents in relation to the wider Australian population. The majority of Australians with a similar demographic profile to Selandra Rise residents report they are 'delighted', 'pleased' or 'mostly satisfied' with their lives (80%). Selandra Rise residents are less satisfied ('delighted', 'pleased' or 'mostly satisfied') (71%), with differences between men and women.

LIFE SATISFACTION SCORES



71%
SELANDRA RISE
RESIDENTS



80%
AUSTRALIANS AGED
BETWEEN 25-34 YEARS

Conclusion

The two most important social determinants of health in relation to growth area communities are access to employment and transport. These determinants are usually tackled independently of the planning, design and delivery of new residential communities, and as a consequence are often delivered well after residents have moved in.

Improving the early delivery of local employment opportunities and access to public transport requires partnerships and long-term collaboration, including between local government, planning authorities, developers and service providers. This

research shows that providing amenities and services within residential community boundaries will not be effective in improving health outcomes without the provision of efficient transport infrastructure and services, and access to local employment opportunities.

In future, broader partnerships along with a whole of government strategy are recommended to ensure that measures to improve the health and wellbeing of residents are embedded into the earliest stages of planning new communities.

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This research was conducted by Dr Cecily Maller, Senior Research Fellow with co-researcher Dr Larissa Nicholls, Research Fellow. Guidance and advice was provided by Professor Ralph Horne (RMIT University) and Professor Anthony Worsley (Deakin University).

Dr Cecily Maller received a VicHealth Research Practice Fellowship in Community Development and Residential Planning from 2010 to 2015. The research was also supported by Stockland, the City of Casey, the Metropolitan Planning Authority and RMIT University. From 2016 to 2020 Cecily will be Vice Chancellor's Senior Research Fellow in the Centre for Urban Research at RMIT University.

The research was approved by the RMIT University Human Research Ethics Committee, approval number CHEAN A-2000495-05/11.



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VicHealth acknowledges the support
of the Victorian Government.

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May 2016 P-PA-327

